

# Ratanak Uddam Chea

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## Education

### LUTHER COLLEGE

2019-2023

Bachelor of Arts in Computer Science

- Recipient of Dean's List Academic Achievement Award
- Graduated with Cum Laude Honor

## Relevant Coursework

Data Mining, Data Modeling and Querying, Applied Machine Learning, Fundamental of Web Programming, Internet Programming, Algorithms and Data Structures, Advanced Algorithms and Data Structures, Computational Model, Computer Network, Programming Languages, Data Analysis and Visualization

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## Expertise

- Oral and written communication, Organizational and problem solving skills, Interpersonal skills and teamwork, Professionalism
  - **Data Analysis and Visualization:** MS Excel, Pandas, Matplotlib, Seaborn, Plotly, Databases, Quantitative Analysis, Tableau, Power BI, PowerPoint
  - **Programming Skills and Tools:** Python, HTML, CSS, JavaScript, SQL, Bootstrap, Java, ReactJs, VSCode, Jupyter Notebook, Google Colab
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## Experience

### DATA SCIENCE INTERN, DESTINATION MEDICAL CENTER

JANUARY 2022-AUGUST 2022

- Utilized Natural Language Processing (NLP) and Machine Learning algorithms to optimize the corporate recruitment process.
- Collaborated with the City of Rochester to create visually compelling data representations using Python and GIS technologies.
- Partnered with Mayo Clinic to develop interactive visualizations of employee data, leveraging Python libraries such as Matplotlib and Plotly.
- Demonstrated strong communication skills by effectively engaging with a team of 10 staff members, including the Executive Director.

### ASSISTANT, LUTHER COLLEGE REGISTRAR'S OFFICE

2020- 2021

- Managed confidential student records, ensuring accuracy and compliance with data protection regulations.
- Utilized office software and systems to assist with data entry, document management, and generating reports.
- Collaborated with the Registrar's Office team to streamline processes and improve overall efficiency.
- Adapted quickly to new tasks and responsibilities, embracing a dynamic work environment and supporting office-wide initiatives.

### TUTOR, LUTHER COLLEGE CENTER FOR ACADEMIC ENRICHMENT

2020-2021

- Mentored and guided undergraduate students in computer science and data science, supporting their learning and growth.
  - Delivered engaging instruction and workshops to enhance students' skills.
  - Assisted students in designing and implementing data science projects, fostering hands-on learning.
  - Provided constructive feedback to refine students' analytical and problem-solving abilities.
  - Conducted individual and group sessions to address students' questions and concerns.
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## Projects

### COLLABEDITS, CS Project

- Implemented the user interface with HTML, CSS, JavaScript and ReactJs
- Designed an intuitive and responsive coding environment
- Built real-time collaboration features using web sockets, multithread processing
- Integrated syntax highlighting and automatic indentation functionality, enhancing code readability and user experience
- Conducted thorough testing and debugging to ensure stability and reliability of the application
- Hosted with AWS at <https://collabedits.com>

### PUMP FAILURE PREDICTION, DS Project

- Led and collaborated with team members on a data science project focused on predicting the failure of water pumps.
- Sourced and conducted data cleaning and preprocessing to ensure data quality and integrity.
- Utilized RandomForest algorithm to develop a predictive model for water pump failure.
- Implemented a Deep Neural Network using Tensorflow Keras to enhance the accuracy of the prediction.
- Fine-tuned the model parameters and performed model evaluation to optimize the predictive performance.
- Prepared and presented a comprehensive report summarizing the findings, methodology, and recommendations based on the analysis.
- Project can be found at [https://github.com/uddamchea/Projects/tree/main/Pump\\_Failure\\_Pred](https://github.com/uddamchea/Projects/tree/main/Pump_Failure_Pred)